

BASIC CONCEPTS OF CHEMISTRY

Chapter 16

Nuclear Chemistry

Objectives:

- * Write balanced nuclear equations for the five types of radiation
- * Using half-lives, estimate the time needed for various amounts of radioactive decay to occur
- * Describe how the three natural types of radiation affect matter
- * Describe the units and methods used to detect and measure radiation
- * Write balanced nuclear equations for the synthesis of specific isotopes by nuclear reactions
- * List and describe the beneficial uses of radioactivity
- * Identify the differences between natural radioactivity, nuclear fission, and nuclear fusion